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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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### Office Action Summary

**Application No.**

10/579,733

**Applicant(s)**

INOUE ET AL.

**Examiner**

CHARLES C. JIANG

**Art Unit**

2416

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 June 2009.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-6 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 06/17/2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/CDC)  
Paper No(s)/Mail Date \_\_\_\_\_  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed 06/17/2009 have been fully considered but they are not persuasive.
2. In response to applicant's argument that Hundscheidt is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, the primary reference Shah teaches a mobile station receiving services from a wireless telecommunication network through a base station (Shah, Fig. 2, Element 33, 25 and 27, Paragraph 58); Hundscheidt teaches this as well (Hundscheidt, Fig. 2, Elements 19, 11-16, Paragraph 25). Therefore Hundscheidt and Shah are analogous, i.e. they both pertain to the art of mobile telecommunication.
3. In response to applicant's argument that Srinivasan is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Hundscheidt and Srinivasan are analogous art because both teach a home location register (HLR), Srinivasan simply further defines the functionality of the HLR, which is well known in the art.

4. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teaching of Hundscheidt into Shah. Since Shah suggests seamless handover for a multi network radio communication system with the help of GPS, and Hundscheidt also suggests multicast for a multi network radio communication system, as it is becoming standard in the Third Generation Partnership Project (Hundscheidt, Paragraph 2) and Hundscheidt better illustrates the elements of a radio access network (Hundscheidt, Fig. 1) in more detail than Shah, in the analogous art of radio communication technology. In addition, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teaching of Giaffreda into Shah, Hundscheidt and Srinivasan. Since Shah and Hundscheidt suggest seamlessly handover a wireless communication device over multiple networks, and Giaffreda suggests keeping a profile of the capabilities of the devices on the network (Giaffreda, Fig. 4, Elements 250 and 260), in the analogous art of radio communication technology.

***Response to Amendment***

***Claim Objections***

5. Applicant is advised that should claim 5 be found allowable, claim 6 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shah, US 2004/0023652, in view of Hundscheidt, US 2007/0243821, further in view of Giaffreda, US 2005/0154774.

9. As per claim 1, Shah teaches a wireless communications system which uses at least two kinds of wireless communication networks (Shah, Fig 2, Elements 33, 37, 25, and 40, Paragraphs 58, 59, there is a mobile network between mobile device 33 and base station 25 and a local network between the two mobile devices 33 and 37), enables to simultaneously connect to a basic access network for executing signaling communication by which communication is controlled so as to be continuously switched (Shah, Paragraph 51-55, mobile network) and to a wireless access network for executing data communications other than the signaling communication (Shah, Paragraph 38, "multiple types of wireless radio access networking") and comprises wireless communication terminals (Shah, Fig. 2, Element 33 and Fig. 1C, Element 10a-e) and a wireless communication server (Shah, Fig. 2, Elements 25 and 27), wherein each of the wireless communication terminals (Previously Discussed) comprises a seamless application processing unit for executing connection processing to the basic access network and connection/disconnection processing to and from the wireless access network (Shah, Paragraphs 40, 64), a basic access network client processing unit having a client function in the signaling communication (Shah, Fig. 1C, Elements 10b and 13, Paragraph 39, 43, the personal communicator signals to the base station), ... respective network devices corresponding to the respective wireless communication networks (Shah, Paragraph 39, Bluetooth), and wireless communication terminal position obtaining means (Shah, Paragraph 50, GPS); ... a basic access network server processing unit (Shah, Fig. 1C, Elements 12, 15, Paragraph 43) for notifying, when the wireless communication networks are continuously switched, the wireless

communication terminals of a wireless communication network acting as a switching candidate (Shah, Paragraph 43, handover request, *see also*, Paragraph 45), ... and a preference setting table for managing the order of the wireless communication networks acting as switching candidates when the wireless Communication networks are continuously switched (Shah, Paragraphs 24-25 and 41, the cited paragraphs of Shah teaches selectively move from one network to another, based on a priority of quality of service), wherein the basic access network client processing unit (Previously Discussed) obtains position information (Shah, Paragraph 50, first sentence) from the position obtaining means (Previously Discussed) and notifies the basic access network server processing unit (Previously Discussed) of the position information (Shah, Paragraph 50, second sentence); and the basic access network server processing unit (Previously Discussed) registers the position information (Shah, Paragraph 50, second sentence, Shah teaches sending the position information, obtained from the GPS from the mobile terminal, to a base station) ...

10. Shah does not teach ... a multicast communication node application processing unit for setting multicast reception, ... and the wireless communication server comprises a home agent application processing unit for setting a multicast transmission using at least the two kinds of the wireless communication networks, ... to the terminal status table.

11. However, Hundscheidt teaches ... a multicast communication node application processing unit for setting multicast reception (Hundscheidt, Fig. 2, multicast, Paragraph 25) using at least the two kinds of the wireless communication networks (Hundscheidt,

Fig. 1 and 2), ... and the wireless communication server comprises a home agent application processing unit for setting a multicast transmission using at least the two kinds of the wireless communication networks (Hundscheidt, Fig. 8, Elements 15 and 82, Fig. 9, Paragraphs 42-44), ... for managing the signaling communication for communicating the status of the respective wireless communication terminals therebetween (Hundscheidt, Fig. 1, UTRAN), and for managing the registration/update processing of the respective wireless communication terminals (Hundscheidt, Fig. 1, SGSN, HLR and CGF), a terminal status table for managing the status of the respective wireless communication terminals (Hundscheidt, Fig. 1, HLR, although Hundscheidt's specification does not disclose anything specific regarding the HLR, the Examiner takes official notice that it is common knowledge that HLR would store terminal status information, *see also*, Srinivasan, US 2002/0022488, Fig. 1, Elements 23 and 24, Paragraphs 35-36), ... to the terminal status table (Hundscheidt, Fig. 1, Element HLR, the HLR as a database can store the position information of the mobile terminals)

12. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teaching of Hundscheidt into Shah. Since Shah suggests seamless handover for a multi network radio communication system with the help of GPS, and Hundscheidt also suggests multicast for a multi network radio communication system, as it is becoming standard in the Third Generation Partnership Project (Hundscheidt, Paragraph 2) and Hundscheidt better illustrates the elements of a radio access network (Hundscheidt, Fig. 1) in more detail than Shah, in the analogous art of radio communication technology.

13. Shah and Hundscheidt do not teach ... a terminal configuration table for managing wireless communication network interfaces implemented in the respective wireless communication terminals ... However, Giaffreda teaches ... a terminal configuration table for managing wireless communication network interfaces implemented in the respective wireless communication terminals (Giaffreda, Paragraph 105, network device profile), ...

14. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teaching of Giaffreda into Shah, Hundscheidt and Srinivasan. Since Shah, Hundscheidt and Srinivasan suggest seamlessly handover a wireless communication device over multiple networks, and Giaffreda suggests keeping a profile of the capabilities of the devices on the network (Giaffreda, Fig. 4, Elements 250 and 260), in the analogous art of radio communication technology.

15. As per claim 3, Shah, Hundscheidt and Giaffreda teach the wireless communications system according to claim 1 (Previously Discussed), wherein the wireless communication server (Previously Discussed) comprises two servers (Hundscheidt, Fig. 1, SGSN, content provider and multicast source) of a home agent server (Hundscheidt, Fig. 1, SGSN and HLR) comprising the home agent application processing unit (Previously Discussed) and the basic access network server processing unit (Previously Discussed), and a resource server (Hundscheidt, Fig. 1, content provider and multicast source) comprising the terminal status table (Previously Discussed), the terminal configuration table (Previously Discussed), and the preference setting table (Previously Discussed); and the basic access network server processing

unit (Previously Discussed) obtains or registers the information(Previously Discussed) in the respective tables (Previously Discussed) of the resource server (Previously Discussed) through a wired or wireless communication network (Hundscheidt, Fig. 1, Ga and Gi).

16. Claims 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shah, US 2004/0023652, in view of Hundscheidt, US 2007/0243821, Giaffreda, US 2005/0154774, as applied to claims 1 and 3 above, further in view of Phelan, USPN 6,240,360 and Chou, USPN 6,327,533.

17. As per claim 2, Shah teaches a wireless communications system according to claim 1 (which is rejected as being unpatentable over Shah, US 2004/0023652, in view of Hundscheidt, US 2007/0243821, further in view of Giaffreda, US 2005/0154774), wherein the wireless communication terminal (Shah, Fig. 2, Element 33 and Fig. 1C, Element 10a-e) comprises ... and the wireless communication server (Previously Discussed) comprises ... of the wireless communication terminal (Shah, Fig. 2, Element 33 and Fig. 1C, Element 10a-e)

18. Shah does not teach ... from the terminal status table ... However, Hundscheidt, teaches ... from the terminal status table (Hundscheidt, Fig. 1, HLR) ...

19. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teaching of Hundscheidt into Shah. Since Shah suggests seamless handover for a multi network radio communication system with the help of GPS, and Hundscheidt also suggests multicast for a multi network radio communication system, as it is becoming standard in the Third Generation Partnership

Project (Hundscheidt, Paragraph 2) and Hundscheidt better illustrates the elements of a radio access network (Hundscheidt, Fig. 1) in more detail than Shah, in the analogous art of radio communication technology.

20. Shah and Hundscheidt do not teach ... a map display client application processing unit for displaying at least the current position periphery map of the wireless communication terminal; ... an image creation processing unit for creating the map image of an optional position referring to at least previously prepared map data and a map display server application processing unit for sending the map image to the wireless communication terminal, wherein when the map display server application processing unit receives a map image creation request from the map display client application processing unit, the map display server application processing unit ... and the periphery map image created by the image creation processing unit ... and further sent to the map display client application processing unit as a response.

21. However, Phelan teaches ... a map display client application processing unit for displaying at least the current position periphery map of the wireless communication terminal (Phelan, Col 2, Liens 36-38); ... an image creation processing unit for creating the map image of an optional position referring to at least previously prepared map data (Phelan, Col 2, Lines 19-25) and a map display server application processing unit for sending the map image to the wireless communication terminal (Phelan, Col 2, Lines 32-35), wherein when the map display server application processing unit receives a map image creation request from the map display client application processing unit (Phelan, Col 2, Lines 31-32), the map display server application processing unit

(Previous Discussed) ... and the periphery map image created by the image creation processing unit (previously discussed) ... and further sent to the map display client application processing unit as a response (Previously Discussed).

22. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teaching of Phelan into Shah and Hundscheidt. Since Shah, Hundscheidt and Giaffreda suggest a system of integrating GPS into a cellular network, whereby a mobile user's position data is kept at a central database, and Phelan suggests a mobile client on a cellular network, (Phelan, Col 8, Line 5), whereby the mobile user can retrieve map information from a central database in the analogous art of radio communication technology.

23. Shah, Hundscheidt, and Phelan do not teach ... obtains the position information ... and sends a periphery map image creation request to the image creation processing unit together with the position information; ... is returned to the map display server application processing unit ...

24. However, Chou teaches ... obtains the position information (Chou, Fig. 5, Element 501, Col 10, Lines 10-11, *see*, Fig 3 and corresponding disclosure: object history files contain position data of tracked objects, *see also*, Col 11, Lines 1-2) ... and sends a periphery map image creation request to the image creation processing unit together with the position information (Chou, Fig. 5, Element 502 and GIS, Col 12, Lines 8-9); ... is returned to the map display server application processing unit (Chou, Col 10 Lines 63-65) ...

25. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teaching of Chou into Shah, Hundscheidt, and Phelan. Since Shah, Hundscheidt, and Phelan suggest a system of integrating GPS into a cellular network, whereby a mobile user's position data is kept at a central database, and Chou suggests enabling mobile user can retrieve map information from a central database, based on user's current position in the analogous art of radio communication technology.

26. As per claim 4, Shah teaches a wireless communications system according to claim 3 (which is rejected as being unpatentable over Shah, US 2004/0023652, in view of Hundscheidt, US 2007/0243821, further in view of Giaffreda, US 2005/0154774), wherein the wireless communication terminal (Shah, Fig. 2, Element 33 and Fig. 1C, Element 10a-e) comprises ... of the wireless communication terminal (Shah, Fig. 2, Element 33 and Fig. 1C, Element 10a-e) ...

27. Shah does not teach ... and the resource server ... from the terminal status table ... However, Hundscheidt teaches ... and the resource server (Hundscheidt, Fig. 1, content provider and multicast source) ... from the terminal status table (Hundscheidt, Fig. 1, HLR) ...

28. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teaching of Hundscheidt into Shah. Since Shah suggests seamless handover for a multi network radio communication system with the help of GPS, and Hundscheidt also suggests multicast for a multi network radio communication system, as it is becoming standard in the Third Generation Partnership

Project (Hundscheidt, Paragraph 2) and Hundscheidt better illustrates the elements of a radio access network (Hundscheidt, Fig. 1) in more detail than Shah, in the analogous art of radio communication technology.

29. Shah and Hundscheidt do not teach ... a map display client application processing unit for displaying at least the current position periphery map of the wireless communication terminal; ... comprises an image creation processing unit for creating the map image of an optional position referring to at least previously prepared map data and a map display server application processing unit for sending the map image to the wireless communication terminal, wherein when the map display server application processing unit receives a map image creation request from the map display client application processing unit, the map display server application processing unit ... and the periphery map image created by the image creation processing unit ... and further sent to the map display client application processing unit as a response.

30. However, Phelan teaches ... a map display client application processing unit for displaying at least the current position periphery map of the wireless communication terminal (Phelan, Fig. 1 and Fig. 2); ... comprises an image creation processing unit for creating the map image of an optional position referring to at least previously prepared map data (Phelan, Col 2, Lines 19-25) and a map display server application processing unit for sending the map image to the wireless communication terminal (Phelan, Col 2, Lines 32-35), wherein when the map display server application processing unit (Previously Discussed) receives a map image creation request (Phelan, Col 2, Lines 31-32) from the map display client application processing unit (Previously Discussed), the

map display server application processing unit (Previously Discussed) ... and the periphery map image created by the image creation processing unit (Previously Discussed)... and further sent to the map display client application processing unit as a response (Previously Discussed).

31. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teaching of Phelan into Shah and Hundscheidt. Since Shah and Hundscheidt suggest a system of integrating GPS into a cellular network, whereby a mobile user's position data is kept at a central database, and Phelan suggests a mobile client on a cellular network, (Phelan, Col 8, Line 5), whereby the mobile user can retrieve map information from a central database in the analogous art of radio communication technology.

32. Shah, Hundscheidt, and Phelan do not teach ... obtains the position information ... as well as sends a periphery map image creation request to the image creation processing unit together with the position information; ... is returned to the map display server application processing unit ...

33. However Chou teaches ... obtains the position information (Chou, Fig. 5, Element 501, Col 10, Lines 10-11, *see*, Fig 3 and corresponding disclosure: object history files contain position data of tracked objects, *see also*, Col 11, Lines 1-2) ... as well as sends a periphery map image creation request to the image creation processing unit together with the position information (Chou, Fig. 5, Element 502 and GIS, Col 12, Lines 8-9); ... is returned to the map display server application processing unit (Chou, Fig. 5, Elements 502, 505, 506, and 500, Col 10 Lines 63-65 and Col 12, Lines 8-15) ...

34. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teaching of Chou into Shah, Hundscheidt, and Phelan. Since Shah, Hundscheidt, and Phelan suggest a system of integrating GPS into a cellular network, whereby a mobile user's position data is kept at a central database, and Chou suggests enabling mobile user can retrieve map information from a central database, based on user's current position in the analogous art of radio communication technology.

35. Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shah, US 2004/0023652, in view of Hundscheidt, US 2007/0243821, further in view of Giaffreda, US 2005/0154774 and Ernst, US 2004/0010615.

36. As per claim 5 and 6, Shah teaches a wireless communications system which uses at least two kinds of wireless communication networks (Shah, Fig 2, Elements 33, 37, 25, and 40, Paragraphs 58, 59, there is a mobile network between mobile device 33 and base station 25 and a local network between the two mobile devices 33 and 37), enables to simultaneously connect to a basic access network for executing signaling communication by which communication is controlled so as to be continuously switched (Shah, Paragraph 51-55, mobile network) and to a wireless access network for executing data communications other than the signaling communication (Shah, Paragraph 38, "multiple types of wireless radio access networking") and comprises wireless communication terminals (Shah, Fig. 2, Element 33 and Fig. 1C, Element 10a-e) and a wireless communication server (Shah, Fig. 2, Elements 25 and 27), wherein each of the wireless communication terminals comprises a seamless application

processing unit for executing connection processing to the basic access network and connection/disconnection processing to and from the wireless access network (Shah, Paragraphs 40, 64), a basic access network client processing unit having a client function in the signaling communication (Shah, Fig. 1C, Elements 10b and 13, Paragraph 39, 43, the personal communicator signals to the base station), ... respective network devices corresponding to the respective wireless communication networks (Shah, Paragraph 39, Bluetooth), and wireless communication terminal position obtaining means (Shah, Paragraph 50, GPS); ... a basic access network server processing unit for notifying (Shah, Fig. 1C, Elements 12, 15, Paragraph 43), when the wireless communication networks are continuously switched, the wireless communication terminals of a wireless communication network acting as a switching candidate (Shah, Paragraph 43, handover request, *see also*, Paragraph 45), ... and a preference setting table for managing the order of the wireless communication networks acting as switching candidates when the wireless communication networks are continuously switched (Shah, Paragraphs 24-25 and 41, the cited paragraphs of Shah teaches selectively move from one network to another, based on a priority of quality of service), wherein the basic access network client processing unit and the basic access network server processing unit execute communication according to the signaling communication (Shah, Paragraph 51-55, mobile network uses signaling communication); ... the basic access network client processing unit obtains position information from the position obtaining means (Shah, Paragraph 50, first sentence) and notifies the basic access network server processing unit of the position information

(Shah, Paragraph 50, second sentence); and the basic access network server processing unit registers the position information (Shah, Paragraph 50, second sentence, Shah teaches sending the position information, obtained from the GPS from the mobile terminal, to a base station) ...

37. Shah does not teach ... a multicast communication node application processing unit for setting multicast reception using at least the two kinds of the wireless communication networks, ... and the wireless communication server comprises a home agent application processing unit for setting a multicast transmission using at least the two kinds of the wireless communication networks, ... for managing the signaling communication for communicating the status of the respective wireless communication terminals therebetween, and for managing the registration/update processing of the respective wireless communication terminals, a terminal status table for managing the status of the respective wireless communication terminals, ... to the terminal status table; ...

38. However, Hundscheidt teaches ... a multicast communication node application processing unit for setting multicast reception (Hundscheidt, Fig. 2, multicast, Paragraph 25) using at least the two kinds of the wireless communication networks (Hundscheidt, Fig. 1 and 2), ... and the wireless communication server comprises a home agent application processing unit for setting a multicast transmission using at least the two kinds of the wireless communication networks (Hundscheidt, Fig. 8, Elements 15 and 82, Fig. 9, Paragraphs 42-44), ... for managing the signaling communication for communicating the status of the respective wireless communication terminals

therebetween (Hundscheidt, Fig. 1, UTRAN), and for managing the registration/update processing of the respective wireless communication terminals (Hundscheidt, Fig. 1, SGSN, HLR and CGF), a terminal status table for managing the status of the respective wireless communication terminals (Hundscheidt, Fig. 1, HLR, although Hundscheidt's specification does not disclose anything specific regarding the HLR, the Examiner takes official notice that it is common knowledge that HLR would store terminal status information, *see also*, Srinivasan, US 2002/0022488, Fig. 1, Elements 23 and 24, Paragraphs 35-36), ... to the terminal status table (Hundscheidt, Fig. 1, Element HLR, the HLR as a database cans store the position information of the mobile terminals); ...

39. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teaching of Hundscheidt into Shah. Since Shah suggests seamless handover for a multi network radio communication system with the help of GPS, and Hundscheidt also suggests multicast for a multi network radio communication system, as it is becoming standard in the Third Generation Partnership Project (Hundscheidt, Paragraph 2) and Hundscheidt better illustrates the elements of a radio access network (Hundscheidt, Fig. 1) in more detail than Shah, in the analogous art of radio communication technology.

40. Shah and Hundscheidt do not teach ... a terminal configuration table for managing wireless communication network interfaces implemented in the respective wireless communication terminals ... and any one of the wireless access networks is switched to another wireless access network based on the terminal status table, while maintaining connection of the basic access network.

41. However, Giaffreda teaches ... a terminal configuration table for managing wireless communication network interfaces implemented in the respective wireless communication terminals (Giaffreda, Paragraph 105, network device profile), ... and any one of the wireless access networks is switched to another wireless access network based on the terminal status table, while maintaining connection of the basic access network (Giaffreda, Paragraph 25).

42. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teaching of Giaffreda into Shah and Hundscheidt. Since Shah, Hundscheidt and Srinivasan suggest seamlessly handover a wireless communication device over multiple networks, and Giaffreda suggests keeping a profile of the capabilities of the devices on the network (Giaffreda, Fig. 4, Elements 250 and 260), in the analogous art of radio communication technology.

43. Shah, Hundscheidt, and Giaffreda do not teach ... the seamless application processing unit and wireless access networks execute communication through the multicast communication node application processing unit; ...

44. However, Ernst teaches ... the seamless application processing unit and wireless access networks execute communication through the multicast communication node application processing unit; (Ernst, Paragraph 100) ...

45. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teaching of Ernst into Shah, Hundscheidt, and Giaffreda. Since Shah, Hundscheidt, and Giaffreda suggest seamless handover and multicasting, and Ernest also suggests seamless handover and multicasting, in

particular, seamless handover through multicasting control in the analogous art of radio communication technology.

***Conclusion***

46. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHARLES C. JIANG whose telephone number is (571)270-7191. The examiner can normally be reached on M-F: 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 517-272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/C. C. J./  
Examiner, Art Unit 2416

/William Trost/  
Supervisory Patent Examiner, Art Unit 2416